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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 108685	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/AU2003/000737	International Filing Date (day/month/year) 13 June 2003	Priority Date (day/month/year) 13 June 2002
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ G01R 33/44, G01V 3/14, G01N 24/08		
Applicant QRSCIENCES TECHNOLOGIES PTY LTD et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of 4 sheets, including this cover sheet.	
<input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).	
These annexes consist of a total of sheet(s).	
3. This report contains indications relating to the following items:	
I	<input checked="" type="checkbox"/> Basis of the report
II	<input type="checkbox"/> Priority
III	<input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/> Lack of unity of invention
V	<input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/> Certain documents cited
VII	<input type="checkbox"/> Certain defects in the international application
VIII	<input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 31 December 2003	Date of completion of the report 30 September 2004
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer MAKI MARYANOVICH Telephone No. (02) 6283 2798

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/AU2003/000737

I. Basis of the report**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed.
- ☐ the description, pages , as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the drawings, pages , as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/AU2003/000737

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 2, 9-11, 13-15, 17, 18, 21-32, 34, 35, 43, 45, 51	YES
	Claims 1, 3-8, 12, 16, 19, 20, 33, 36-42, 44, 46-50, 52	NO
Inventive step (IS)	Claims 9-11, 13-15, 17, 18, 21-32, 35, 43, 51	YES
	Claims 1-8, 12, 16, 19, 20, 33, 34, 36-42, 44-50, 52	NO
Industrial applicability (IA)	Claims 1-52	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

NOVELTY (N) Claims 1, 3-8, 12, 16, 19, 20, 33, 36-42, 44, 46-50, and 52:

(a) US 6291994 B1 (KIM et al) 18 September 2001

Citation (a) explicitly discloses all the features of these claims. For example see:

Claims 1, 44:	- an amplifier	item 25 (or 26) in Fig 1, column 7, lines 12-14,
	- a matching section	item 35 in Fig 1, column 7, lines 25-26,
	- reducing Q factor of the antenna	column 4, lines 3-4.
Claims 3:	- a damping means	column 4, lines 3-4, Fig 9A,
Claims 4:	- switching means to isolate	T1 in Figs 6 and 7, column 15, lines 36-64,
	- to electrically connect	R 118 in Figs 6 and 7,
Claim 5:	- isolating means:	item 39 in Fig 1,
Claims 6-8:	- isolating means	item 38 in Fig 1,
Claim 12:	- switching means	Figs 8A-8C, column 16, lines 11-27,
Claims 16:	- dumping switch	column 16, lines 5-42,
Claims 19, 20:	- dumping switch: FET, MOSFET	column 17, lines 8-15,
Claim 33:	- diodes, back-to-back	item 38 in Fig 1,
Claims 36-39:	- output signal voltages	Fig 13C, column 19, line 54 - column 20, line 3,
Claims 40-42:	- isolating means	Figs 12A, 12B, 13A & 13B,

Continued in the Supplemental Box...

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of Box V:

Claims 46-50: damping stored transmitter energy column 4, lines 8-30,
Claim 52: - high Q followed by low Q column 16, lines 17-22.

INVENTIVE STEP (IS) Claims 1-8, 12, 16, 19, 20, 33, 34, 36-42, 44-50, 52:

Claims 1, 3-8, 12, 16, 19, 20, 33, 36-42, 44, 46-50 and 52 as above.

- (b) WO 2001/006925 A1 (THE JOHNS HOPKINS UNIVERSITY) 1 February 2001
- (c) JP 7-260719 A (HITACHI MEDICAL CORP) 13 October 1995
- (d) US 4129822 A (TRAFICANTE) 12 December 1978

Claims 2, 34, 45: These citations do not individually disclose all the features of the claims, but when combined, as would be obvious to a person skilled in the art, they disclose all of the features of the claims. In citation (b) see Figs 3A and 6, page 18, lines 14-30. In citation (c) see abstract and figure. In citation (d) see abstract, Figs 2-5, column 5, lines 27-66 and column 7, lines 13-20.